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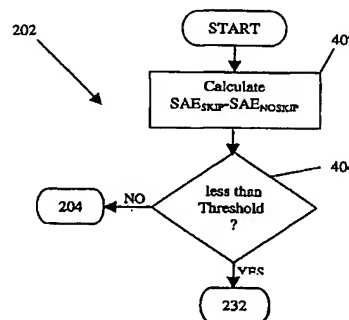
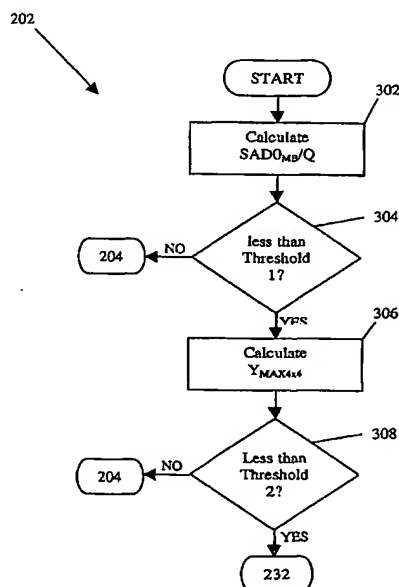
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(54) Title: VIDEO ENCODING WITH SKIPPING MOTION ESTIMATION FOR SELECTED MACROBLOCKS



(57) Abstract: The computational complexity of video encoding is reduced by taking the decision whether to encode a region of a video frame or to skip the encoding prior to calculating whether any motion has occurred in respect of the same region in the previous frame. In one embodiment, the decision on whether to skip the encoding of a region is based on an estimate of the energy of pixel values in the region and/or an estimate of discrete cosine transform coefficients. In a further embodiment, the decision is based on an estimate of the distortion likely to occur if the region is not encoded.

INTERNATIONAL SEARCH REPORT

National Application No

PCT/GB 03/05526

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04N7/36 H04N7/26

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 192 148 B1 (LIN REHN-LIEH) 20 February 2001 (2001-02-20) cited in the application	1,3-7, 11,16,17
Y	abstract column 4, line 33 - line 34 column 4, line 66 - column 5, line 15 column 5, line 25 - line 28 column 6, line 5 - line 7 column 6, line 52 - line 63	2,8,9,12
A	figure 2	10,13-15
Y	US 2002/106021 A1 (CHEN CHIN-YUN ET AL) 8 August 2002 (2002-08-08)	2,8,9
A	abstract paragraphs '0009!-'0011!, '0024!, '0025!, '0027!, '0029! figures 2,3	10

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>YANG J-F ET AL: "COMPUTATION REDUCTION FOR MOTION SEARCH IN LOW RATE VIDEO CODERS"</p> <p>IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY, IEEE INC. NEW YORK, US,</p> <p>vol. 12, no. 10, October 2002 (2002-10), pages 948-951, XP001133426</p> <p>ISSN: 1051-8215</p>	12
A	<p>abstract</p> <p>page 948, left-hand column, line 40 - line 42</p> <p>page 948, right-hand column, line 17 - line 34</p> <p>page 950, left-hand column, line 1 - right-hand column, line 18</p>	13-15

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 6192148	B1	20-02-2001	TW	508908 B	01-11-2002
US 2002106021	A1	08-08-2002	TW	484327 B	21-04-2002
			JP	2002218475 A	02-08-2002